

Applicants' invention, as set out in claim 24, involves an ink jet printer for use with an ink jet head having a nose portion through which ink is ejected. The printer includes a paper feeding path which guides a sheet of printing paper in a direction from a paper feeding side to a paper discharging side, a paper feed roller having a peripheral surface coincident with a portion of the paper feeding path, a driving device operatively coupled to the paper feed roller and selectively rotating the paper feed roller, and a presser abutting the paper feed roller at a contact position, the contact position being located on the paper feeding path, so that when the paper feed roller is rotated by the driving device the sheet of printing paper is moved along the paper feeding path. A flat paper guide surface is disposed in the paper feeding path downstream of the contact position, a printing area is located between the flat paper guide surface and the ink jet head and corresponds to a region over which ink can be applied by ejection by the ink jet head, and plural projections are disposed on the paper guide surface. At least some projections are at least in part disposed inside of the printing area which is located between the contact position where the presser abuts the feed roller and a position where the nose portion of the ink jet head opposes the paper guide surface across the paper feeding path when the ink jet head ejects ink. The projections are arranged at intervals in a direction approximately transverse to the printing paper for supporting the sheet of paper moving along the paper feeding path.

Claim 36 is directed to an ink jet printer for use with an ink jet head having a nose portion through which ink is ejected. This printer has a paper feeding path which guides a sheet of printing paper in a direction from a paper feeding side to a paper discharging side, a paper feed roller having a peripheral surface coincident with a portion of the paper feeding path, a driving device operatively coupled to the paper feed roller and selectively rotating the paper feed roller, a presser abutting the paper feed roller at a contact position, the contact position being

located on the paper feeding path, so that when the paper feed roller is rotated by the driving device the sheet of printing paper is moved along the paper feeding path, and a flat paper guide surface disposed in the paper feeding path downstream of the contact position. A printing area is located between the flat paper guide surface and the ink jet head and corresponds to a region over which ink can be applied by ejection by the ink jet head. Plural projections are disposed on the paper guide surface, and at least some of those projections are at least in part disposed within the printing area. At least some projections are arranged at intervals in a direction approximately transverse to the printing paper and beneath the sheet of paper moving along the paper feeding path.

In the interests of brevity, Applicants will not summarize the remaining independent claims. If, however, the Examiner would prefer such additional claim summaries, those summaries will be provided upon request.

This rejection is first respectfully traversed on grounds the cited references are not properly combined; the suggested modification to Ishii, the primary reference, would render Ishii's printer unfit for its intended purpose. Such a combination is forbidden by M.P.E.P. § 2143.01, entitled "Suggestion or Motivation To Modify the References," which states in pertinent part:

**THE PROPOSED MODIFICATION CANNOT RENDER
THE PRIOR ART UNSATISFACTORY FOR ITS
INTENDED PURPOSE**

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) (Claimed device was a blood filter assembly for use during medical procedures wherein both the inlet and outlet for the blood were located at the bottom end of the filter assembly, and wherein a gas vent was present at the top of the filter assembly.

The prior art reference taught a liquid strainer for removing dirt and water from gasoline and other light oils wherein the inlet and outlet were at the top of the device, and wherein a pet-cock (stopcock) was located at the bottom of the device for periodically removing the collected dirt and water. The reference further taught that the separation is assisted by gravity. The Board concluded the claims were prima facie obvious, reasoning that it would have been obvious to turn the reference device upside down. The court reversed, finding that if the prior art device was turned upside down it would be inoperable for its intended purpose because the gasoline to be filtered would be trapped at the top, the water and heavier oils sought to be separated would flow out of the outlet instead of the purified gasoline, and the screen would become clogged.).

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THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (Claims were directed to an oil seal comprising a bore engaging portion with outwardly biased resilient spring fingers inserted in a resilient sealing member. The primary reference relied upon in a rejection based on a combination of references disclosed an oil seal wherein the bore engaging portion was reinforced by a cylindrical sheet metal casing. Patentee taught the device required rigidity for operation, whereas the claimed invention required resiliency. The court reversed the rejection holding the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.).

Ishii seeks to "adjust the gap between a memory head and a memory medium and to make the bottom margin as small as possible", and to accomplish this goal teaches a "floating" head structure. Those skilled in the art will recognize from Figs. 1 and 2 of *Ishii* that the guide rail 9, which supports the head, and a retaining plate 15 are held by pivoting arms. This

arrangement allows the head to closely track the recording paper; Ishii states the "movable lever is shifted upward by the distance corresponding to the thickness of the paper."

Saito is alleged to teach a ribbed surface.

It is respectfully submitted that one skilled in the art would not modify Ishii's structure to include Saito's ribbed surface because the "sag" of the recording paper between Saito's adjacent ribs would vary the distance between the recording head and the recording paper, precisely the opposite of what Ishii seeks to accomplish. That is, as the recording head would reciprocate across the recording medium, it would, when passing over the ribs, be close to the recording medium, and, when in the area between the ribs, it would be further from the downwardly-sagging recording medium (neither of these references teach a structure that would prevent such sagging, say, by using a suitable discharge roller). In view of M.P.E.P. § 2143.01, the proposed combination is improper because it would render the Ishii printer unfit for its intended purpose.

Even if the references are combined, that combination still would not suggest the present invention. It will be recognized that the claimed invention provides for structure relating to the direction of paper feed and the position of projections (ribs). Both Ishii and Saito, as explained below, are entirely silent regarding such features.

Ishii was cited only as teaching certain aspects of an ink jet recording device. The Examiner **admitted** that Ishii does not even suggest the provision of projections, much less projections arranged in the manner claimed.

In an attempt to remedy the deficiencies of Ishii, the Office Action asserted that Figs. 31A and 32A of Saito taught ribs 12a. Applicants respectfully submit that while Saito may

depict ribs 12a, Saito still does not teach the claimed aspects of this invention relating to the position of the ribs with regard to the printing area.

More specifically, the Office Action asserted that since Saito's ribs were formed on the entire surface shown in Fig. 27, those ribs would extend beyond the printing area. That characterization of Saito, however, is not supported by either Figs. 27 or 31A-32B, or the discussion of those drawings at col. 12, lines 43-55, and col. 13, line 54, through col. 14, line 10. These drawings do not even depict a recording head¹, much less the position of the recording head relative to the ribs, and the text of the specification is also silent on this point. Consequently, these teachings in no way suggest the claim projection arrangement.

Even assuming *arguendo* that the recording head shown in Figs. 2 or 13 were applied to the structure shown in Figs. 27 or 31A-32B, that still would not suggest the claimed invention, because it is not clear from the drawings where the area recorded by that recording head would lie. At best, all that is shown is a protrusion on the head; it is not clear where the recorded area lies. In comparison, application Figs. 29 and 31 depict print area PA.

Furthermore, it should be noted that Saito holds the recording medium in the vertical orientation, not horizontal. Consequently, Saito in no way suggests the aspects of the claimed invention providing that the projections are arranged beneath the recording paper, or that the projections support the sheet of paper as it moves.

Consequently, even if one skilled in the art were taught to combine the teachings of Ishii with Saito, that combination still would not suggest an ink jet printer as is claimed.

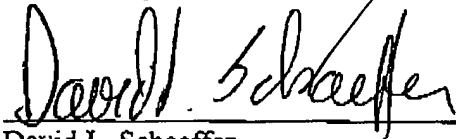
For all the foregoing reasons, favorable reconsideration and withdrawal of this rejection are respectfully requested.

¹ Compare Fig. 2, which depicts recording head 8.

CONCLUSION

Favorable consideration and prompt allowance of this reissue application is respectfully requested. In the event that there are any questions, or should additional information be required, please do not hesitate to contact patentee's attorney at the number listed below.

Respectfully submitted,



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